

50X1

50X1

50X1

DATE OF INFORMATION

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES, WITHIN THE MEANING OF TITLE 18, SECTIONS 793 AND 794, OF THE U.S. CODE, AS AMENDED. ITS TRANSMISSION OR REVELATION OF ITS CONTENTS TO OR RECEIPT BY AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. THE REPRODUCTION OF THIS FORM IS PROHIBITED.

SOURCE

50X1

1. By 1940, after several changes in the administrative organization charged with the mining, distribution and transportation of coal, the planning of annual production quotas and the control of the fulfillment of these quotas was concentrated in an agency known as "Gosplan" (State Planning Commission). Based on quotas of various coal consumers (heavy industry, light industry and central government agencies, local administrations, hospitals and other public organizations plus urban and rural population needs) "Gosplan" compiled statistics for past years and set up control figures for the future. These statistics always included plans for the transportation of the coal as produced under the quotas. The control figures for quotas to be fulfilled by the coal industry are not wholly determined on the basis of true statistics. They are more often set forth arbitrarily and with a complete disregard for realities. Usually, before the quotas are published, they are submitted and confirmed by the Politburo and, as a rule, the Politburo will arbitrarily increase the quotas in order to create an atmosphere of tension and fear for those responsible for the execution of the quotas.
2. The need of a central planning agency was sharply demonstrated during a period in 1933-34 when highly inflated figures for coal production were set. It was a period of agonizing efforts to fulfill the orders of the military. The Donets Basin was supposed to produce 60 million metric tons of coal for the period and 75 to 80 million metric tons thereafter. A daily output of 210 to 220 thousand metric tons was called for while actually 180 to 185 thousand was reached. The problem was further aggravated for the mines by the fact that the railroads kept sending daily all coal cars as called for in the plan of the period. There was not enough coal to load these cars but to return them empty or to retain them idle was the equivalent of a criminal offense. The central administration in Moscow was the only agency that could change the number of cars being dispatched daily. This is only one example of the complete disorganization and arbitrary rules that controlled the production of coal.

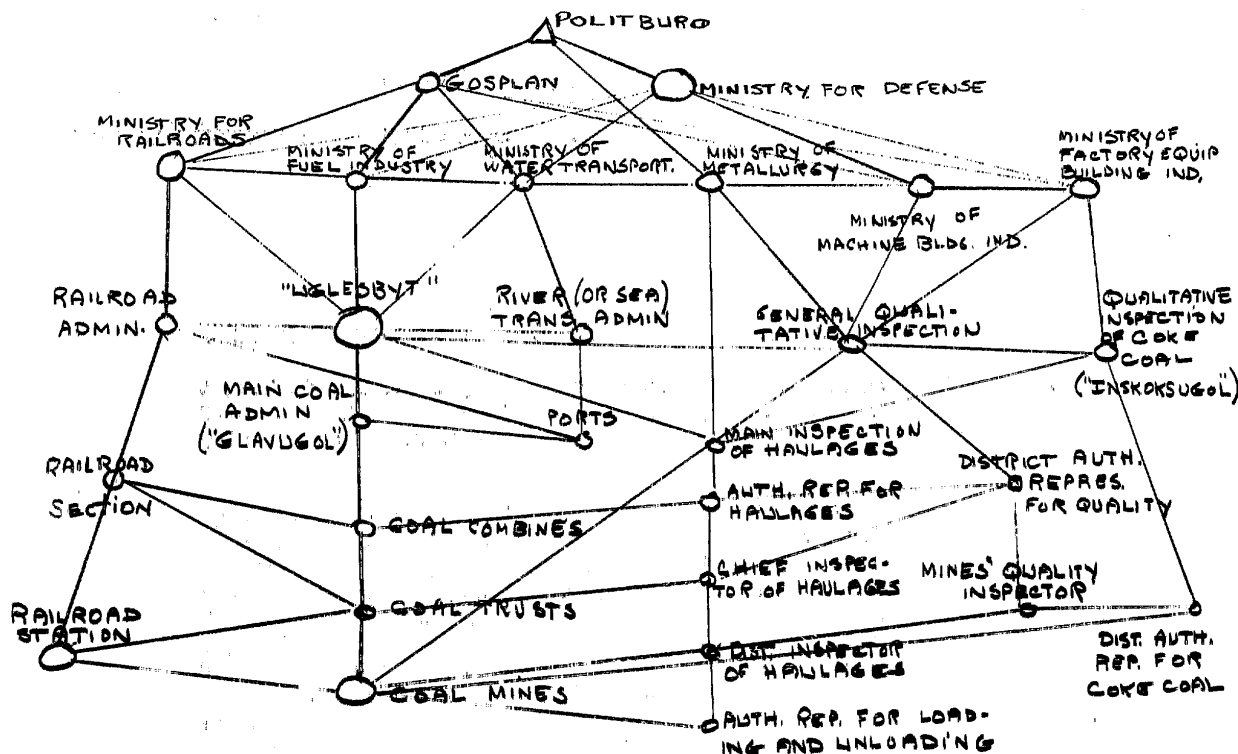
DISTRIBUTION

ORR EV

CONFIDENTIAL

-2-

3. The following general diagram shows the structure of the administrative set-up of coal transportations on the eve of World War II: 50X1



4. After the control figures for output and transportation of coal have been confirmed by "Gosplan" they are sent on to the Ministry of Fuel Transportation and to the organization known as "Uglesbyt" (The Main Commission for Fuel Transportation). This organization is a combined agency and representatives include those from the Ministry of Railroads, the Ministry of Fuel Industry, the Ministry of Metallurgy, the Ministry of Machine Building and other interested industries. "Uglesbyt" is responsible for the distribution of coal, according to types, among the various consumers as set forth in the over-all plan.
5. Each shipment of coal to a consumer requires eight copies of an issue slip known as "Naryad". The copies are distributed to the following organizations:
- original to Uglesbyt
 - one copy to the Ministry of Railroads (Transportation) for action
 - one copy to the Ministry of Fuel Industry, later forwarded to a specific trust or mine for action
 - one copy to the authorized representative of the railroad stations involved.
 - one copy to the Office of General Inspection
 - one copy to the Office of Qualitative Inspection for Coke Coal
 - one copy to Gosplan

CONFIDENTIAL

CONFIDENTIAL

-3-

50X1

6. The "Uglesbyt" agency executes all loading operations while the Departments of Exploitation and Traction of the Ministry of Railroads execute all haulage orders required for the shipment of coal. Neither of these agencies can cancel or change an order or shipment in any way. Changes in the amounts of coal to be loaded and shipped can be made only by an authorized representative for "Haulages", provided that such changes can be justified. When a mine receives its copy of the issue slip (Naryad) it becomes fully responsible for loading a specified amount of coal at a specified time. The railroad station, after it receives its copy of the issue slip, dispatches the required number of freight cars to the mine at a set time. These cars can be sent to the mine loading points in three parts or all at one time. Loading operations are scheduled to start at six PM. Six hours are allowed to load an ordinary train and two hours to load a direct-destination (marshrutnyy) train. The loading time is calculated from the moment the empty cars arrive at the loading point at the mine siding to the time when the train is turned over to the railroad station. To take care of all of these operations, coal trusts have transportation sections with switch engines assigned to them and individual mines have loading sections (a crew of loaders). If the cars are loaded by hand, two men are required to load a 20 ton (metric) in three to four hours. Sometimes mining operations are cut in half in order to secure enough man power to load a train within the two hour or four hour period.
7. In order to be able to promptly fulfill the order (or orders) called for on the issue slips, a coal mine must have enough coal on hand already mined. However, this is not always true. Sometimes the cars have to be loaded directly with coal coming directly from the mine. However, this presents a problem, for it cannot always be done, particularly when the issue slips call for more coal than the mine can produce in time to meet requirements called for, when the current production consists of a different type of coal than called for on the issue slip and when the current coal production has a greater ash content than stipulated on the issue slip. (In the latter cases, it is sometimes necessary to unload the coal after it has been loaded and then enrich it and reanalyze it, after which it is reloaded. Since most of the unloading and loading is done by hand, this causes considerable delay and waste of time).
8. The loading departments of the mines are required to take specimens from each car load of coal to be shipped and to send them at once to the chemical laboratory for qualitative analysis. Each mine has representatives from the various factories and other organizations which ultimately receive the coal being shipped. They inspect and check each shipment ordered by their respective organizations. In addition, all shipments are inspected by representatives from "Uglesbyt". All coke-coal shipments are inspected by representatives from "Inskoksugol" (Inspection of Coke-Coal). There are occasions, when a mine is loading coal for several consumers simultaneously, that there are as many as 10 different inspectors present.
9. Specimens of coal for analysis are taken from the car loads according to the instructions of the representatives supervising loading operations. The specimens are placed in four separate containers, one going to the trust laboratory, one to the consumer (who makes his own analysis) one to the central laboratory for the type of coal (such as the central laboratory for coke-coal), and one to the mine for record purposes. All four containers are sealed by both mine authorities and consumer representatives. As mentioned, these specimens are taken at once to the chemical laboratory of the mining trust where the percentage of volatile agents, ash and sulphur are determined. Each type of coal shipped to consumers must meet certain requirements as provided for in the over-all plan. The ash content requirement must be strictly observed. The results of the laboratory analysis are always known by the time loading operations are completed.

CONFIDENTIAL

Loading operations take up all of the time allowed for in the time schedule, hence, if negative results are received from the analysis it is necessary to unload and reload the cars. This means delay and detention of cars beyond the time allowed. When this occurs, the railroad stations impose heavy fines. Therefore, this means that those responsible for the loading operations can be charged with criminal responsibility. However, instances of unloading and re-loading are relatively rare and do not constitute a major problem.

50X1

10. Transportation of coal in the Donets Basin was provided for by the following railroads:

- a) The Southern Railroad (main administration in Kharkov) connecting:
 - 1) Kharkov-Lozovaya-Slavyansk-Nikitovka-Gorlovka-Krinichnaya-Khartsysk;
 - 2) Kharkov-Lozovaya-Sinelnikovo-Dzhankoy (Crimea);
 - 3) Kharkov-Kupyansk;
 - 4) Lozovaya-Slavyansk-Konstantinovka-Kramatorskaya-Bakhmut (Artemovsk)-Yasinovataya-Popasnaya
- b) Ekaterininskaya Railroad; main administration in Ekaterinoslav (old name), connecting:
 - 1) Ekaterinoslav-Sinelnikovo-Yasinovataya-Khopsynovo-Rostov;
 - 2) Yasinovataya-Debaltseyvo-Popasnaya-Kupyansk;
 - 3) Debaltseyvo-Alchevskoe-Lugansk (Voroshilovograd)-Millerovo;
 - 4) Yasinovataya-Volnovakha-Mariupol-Konstantinovka.
- c) The 2-nd Ekaterininskaya Railroad; main administration in Ekaterinoslav (old name), connecting:
 - 1) Chaplino-Berdyansk-Pologi-Volnovakha-Karavannaya-Ilovayskaya-Debaltsevo.
- d) The Northern Donets Railroad; main administration in Kharkov; connecting:
 - 1) L'gov-Osnova-Kharkov-Izyum-Liman-Bakhmut-Nikitovka;
 - 2) Liman-Yama-Sentyanovka-Rodakovo-Likhaya;
- e) The East-South Railroad; main administration in Voronezh; connecting:
 - 1) Gryazi-Valuyki-Chertkovo-Millerovo-Likhaya-Zverevo;
- f) The Merefo-Kherson Railroad, main administration in Ekaterinoslav; connecting:
 - 1) Rutenkovo-Kurykhovka-Grishene-Konstantinograd.
- g) Shortly before the outbreak of World War II, the Moscow-Donets Basin Railroad was built. Its administration is in Moscow and Valuyki. It connects:
 - 1) Millerovo-Zverevo-Starobelsk-Valuyki-Elets-Moscow.

(Note: several of the names of the cities and railroads have since been changed)

Shortly before the beginning of World War II reorganization of some of the railroads in the Donets Basin took place. The northern sections of the Northern Donets Railroad, Southern Railroad and Ekaterininskaya Railroad were organized into:

- a) The Northern Donets Railroad with its main administration located in Artemovsk;
- b) The Southern Donets Railroad with its main administration in Yasinovataya (Donets Basin).

This latter railroad incorporated sections of the Ekaterininskaya, 2-nd Ekaterininskaya, Merefo-Kherson and Southeastern Railroads. As a result, the 2-nd Ekaterininskaya Railroad ceased to exist as an administrative unit.

CONFIDENTIAL

CONFIDENTIAL

5

50X1

11. There was always a shortage of both cars and locomotives, primarily due to the fact that the demands of the growing industries were steadily increasing. Then, too, during the harvest season, a very large percentage of all rolling stock must be reserved to provide transportation of grains. Various types of cars were used for transporting coal. At first 20-ton, two axle wooden cars with and without tops were used as well as 10 to 12 ton box cars and flat cars. Later, 40 ton, four-axle cars with and without tops were put in commission. Around 1929 there were several car manufacturing plants built in the USSR and 60 ton, four-axle iron, coal cars began to appear. An insignificant number of 40 ton open metal cars of the hopper type were also manufactured. As a rule, though, up until 1941 any and all types of cars were put to use. Mainly, however, coal is transported in open cars in order to facilitate loading. (The majority of mines have bunkers with a two to three day output capacity. By chute from the bunker, a 60 ton car can be loaded in about 10 minutes). All new 40 and 60-ton iron cars had a removable door or floor portion to facilitate unloading. These cars are mainly used for transportation of coal to such plants and factories which have scaffolds of the bridge type for unloading.
12. Constant improvements have been made on the railroads leading to and from the Donets Basin. Old rails have been replaced by new and heavier rails. The number of wooden ties per kilometer has been increased. New supports and fish-plates are installed more often. Bridges have been reinforced. New switching devices have been installed. The automatic blocking system was remodeled and improved. More mechanized humps were provided for railroad centers. Crushed stone ballast was used more frequently. Both new and old cars were provided with automatic-coupling devices and axle bearings of better metal and automatic lubrication. All four-axle cars have automatic pneumatic brakes of the Westinghouse-Matrossov type. Railroad sidings leading to the coal mines have been improved. (The individual mines are responsible for the maintenance of these sidings and if they fail to keep them in good condition the railroad often refuses to send cars to them). However, despite some improvement, these side tracks are usually in a deplorable condition. Ballast is of poor quality; the switching devices are obsolete; the signal system is of the 1917 vintage. Most have light rails and downgrades exceeding standards.
13. As the main lines and rolling stock were improved the norms for train load capacity were increased. A new locomotive, the F.D., with a tractive force of about 7,500 tons and a speed of 50 to 60 kms per hour was designed for hauling coal and ore in and from the Donets Basin. (In 1939-1940 two to three locomotives per week were being turned out by the locomotive plant Lugansk (Voroshilovograd). The locomotive models "Shch" and "SK" (manufactured by the Bryanskiy Plant and the Kharkov Plant) were revised and improved for heavier loads. In addition to the locomotive plants mentioned, the Nevsky Works in Leningrad and Nizhni Tagil'skie Plant in Moscow also made locomotives used in the Donets. Some were imported from abroad, especially Sweden. However, there were never enough at the disposal of the railroads and they always seemed to be of poor quality. I might point out that the transportation section of the coal mines and trusts have some freight cars and locomotives (usually two or three) at their disposal for switching purposes within their immediate vicinity. These locomotives are obsolete and barely serviceable. In certain cases where mines and consumer plants are located close together, the railroad lines between them are served entirely by cars and locomotives under the authority of the mines and plants. The Ministry of Railroads has nothing to do with the transportation of coal in such cases, which greatly simplifies the system. Otherwise, the rolling stock is controlled entirely by the Ministry of Railroads. I might note that the great majority of coal cars are returned empty from the north to the Donets Basin. These cars are

CONFIDENTIAL

CONFIDENTIAL

-6-

50X1

processed by classification yards in accordance with special schedules and the transportation sections of the mines are responsible for seeing that the railroad stations deliver the cars on time.

14. Since 1933-1934 the railroads have been using schedules for passenger and freight trains. Freight trains are of two types; composed (miscellaneous) and direct destination (marshrutnyy). The technical speed of a freight train is supposed to be 50 kms per hour. Actually, however, because of frequent stops not provided for in the schedule, traveling speed is reduced to 25 to 30 kms per hour. Thus, to make the 300 kms trip from the Donets Basin to Kharkov requires 10 to 12 hours. Two to four hours (depending upon the type and number of cars) is given over for unloading. Two to three more hours are required for technical inspections. Unserviceable cars are separated and sent to repair shops. Then, too, trains of "empties" sometimes have a few cars loaded with cargo going in the same direction. These cars are often placed behind the locomotive and followed by the empty cars, causing additional delays in making the locomotive available. Thus cars spend six to eight hours at the point of their destination and between 24 and 30 hours are used up for a round trip from the Donets Basin to Kharkov. (The return trip from Kharkov takes about seven or eight hours, which includes watering stops.) Efforts are made to cut down this round trip time. As an incentive, locomotive engineers are given rewards for strict adherence to schedules, such a reward being called a "poverstnyy" - a "per kilometer bonus". It is to the engineer's best interest, then, to work at maximum speeds and cut to a minimum the time spent at station stops. Needless to say, accidents are frequent as a result. The average traveling speed of a "composed" freight train is 25 to 30 kms per hour. A record figure of 40 kms per hour was achieved under exceptionally favorable conditions, that is no unscheduled stops, no breakdowns, etc. Direct destination trains have at times reached an average of 60 kms per hour (during the period 1940-1945). Such trains have three or four water tanks. Some other examples of traveling time (one way) from the Donets are:

- a) Donets Basin to Liuki (300-320 kms) five hours
 - b) " " " Pomorino (500-520 kms) 8-10 hours
 - c) " " " Penza (500-520 kms) 20 hours
 - d) " " " Moscow (900 to 1100 kms) 28-32 hours
- (Moscow bound trains leave the Donets Basin by the South Donets and North Donets railroads. The length of the trip varies according to the various points of origin). 40-42 hours is required for a "composed" train.

15. The "direct destination" (Marshrutnyy) train is always loaded at one specific loading point, for instance, a mining trust point. The cargo may consist of different types of coal, however, it is destined to one specific consumer. The railroads bear a heavy responsibility for the speedy and safe handling of such trains. Guards from the consumer organization are sometimes placed on the train as an extra precaution. Made up of the new type 60-ton cars, the net load is between three and four thousand tons. Moving according to a set schedule, the only stops made are for water and to remove damaged cars. If all phases of the movement of the shipment are met according to schedule, the following receive incentive rewards:

- a) Chief inspector in charge of loading and taking of specimens

CONFIDENTIAL

CONFIDENTIAL

-7-

- b) Railroad station of departure (origin)
- c) transport section of the trust
- d) unloading team of the receiving agency.

50X1

(before 1940 a loader received a bonus of 20 to 30% on his 10 ruble a day pay).

16. The Donets Basin coal is divided into the following types and was shipped mainly to such consumers as noted.

- a) Naval coal. Consumed largely by the Navy and the Merchant Marine. Some was used for coking and export (Greece, Italy and France). Coal used for domestic consumption is transported to:

1. Black Sea (Novorossisk, Sevastopol, Feodosiya, Kerch, Nikolayev, Odessa)
2. Azov Sea (Rostov, Mariupol, Berdyansk)
3. Baltic Sea (Leningrad)
4. Caspian Sea (Astrakhan, Baku, Derbent)
5. Dnieper and Volga river ports

- b) Coke coal; mainly as follows:

1. To the following coke plants attached to coal mines.

- a. Varvaropol'e - Pervomayka
- b. Irmino - Kadievka
- c. Krivorozh'e
- d. Bryanka
- e. Olkhovaya
- f. Shchirbinovka
- g. Gorlovka
- h. Prokhorovka
- i. Khanzhenskovo
- j. Makeevka
- k. Yuzovka-Smolyanka
- l. Rutchenko

2. In the rest of the USSR:

- a. Lipetsk Plant
- b. Kharkov coke and tractor plants
- c. Kharkov Locomotive-building and "Selmarsh"
- d. Kharkov electrotechnical and "Svet Shakhtera"
- e. Tractor and metallurgical plants in Stalingrad.
- f. All mechanical plants in Moscow
- g. All plants in Leningrad
- h. Plants in Bryansk and Bezhitsa,
- i. Plants in Yaroslavl and Gorkiy
- j. Agricultural machine-building plants in Novochoerkassk and Zaporozh'e - Alexandrovka.

(The Ural mechanical plants and the Chelyabinsk Tractor Works are partially supplied with the Donets Basin coke)

CONFIDENTIAL

CONFIDENTIAL

-8-

c) Gas and long-flame coal. This coal was used by the railroads of the European portion of the USSR. Since their coal consumption is very great, they also received coal from the following additional sources:

1. Kizilov Coal District
2. Moscow Coal Basin
3. Brown coal basins
4. Pechora-Vorkuta Basin
5. Estonian peat and shale mines
6. Spitzbergen Island, Norway (Soviet concession managed by the "Artugol Trust")

(The railroads consume nearly all gas and long-flame coal and a part of lean coal and anthracite. The Donets Basin accounts for up to 40% of total output of gas and long-flame coal. A small part of this coal goes to power stations and cities).

- d) Lean (poor) coal. This coal is consumed by the power stations with blow furnaces, sugar factories, for transportation and city use.
- e) Anthracite. The Donets Basin has two coal combines: The Voroshilovograd Combine and the Stalino Combine. The following trusts of these combines are producing anthracite:
1. Chistyakov Anthracite Trust in Chistyakovo
 2. Fomin Trust in Zuevka
 3. Snezhnyan Coal Trust in Snezhnoe
 4. "Donbasantrotsit" Trust in Krasnyy Luch
 5. Bokov Anthracite Trust in Bokovo-Lobovo
 6. Sverdlov Coal Trust in Dolzhanskaya
 7. Frunze Coal Trust in Roven'ki.

17. The Rostov Coal Combine manages coal mines in the former Don Cossack area. The following trusts, belonging to this combine, mine anthracite:

- a) Gukov Coal Trust in Gukovo
- b) Vlasov Coal Trust in Shakhtnaya
- c) Nesvetsy Anthracite Trust in Nesvetsy
- d) Donetsko-Grushevskiy Trust

This combine also has the following trusts producing brown coal:

- a) Bugoraevo-Svinarevskiy Trust in Kamenskoe and Boguraevo
- b) Gendorovskiy Trust in Gonduraevskaya

18. All anthracite produced by the Voroshilovograd, Stalino and Rostov Coal Combines is of the three following types:

- a) Slab ("Plita")
- b) Cake ("Kulak")
- c) culm

Slab and cake anthracite is used by the cities, secondary-important industries and railroad locomotives equipped with special blow furnaces. Culm serves as fuel for power stations. Great quantities of it are not utilized and are allowed to be destroyed by spontaneous combustion in dumps around the coal mines.

CONFIDENTIAL

CONFIDENTIAL

-9-

50X1

19. Following are the daily output figures of coal in the Donets Basin, as I recall them, before the beginning of World War II:

a) Voroshilovograd Coal Combine

1. Lisichansk Coal Trust	8,000 tons
2. Kirov Coal Trust	5,000 "
3. Pervomaysk Coal Trust	8,000 "
4. Sergo Coal Trust	11,000 "
5. Bryansk Coal Trust	7,000 "
6. Voroshilov Coal Trust	11,000 "
7. Krasnodon Coal Trust	7,000 "
8. Donbas Anthracite Trust	13,000 "
9. Bokov Anthracite Trust	8,000 "
10. Sverdlov Coal Trust	7,000 "
11. Frunze Coal Trust	5,000 "

Total daily output 90,000 metric tons

b) Stalino Coal Combine

1. Dzerzhinsk Coal Trust	9,000 tons
2. Artem Coal Trust	14,000 "
3. Ordzenikidze Coal Trust	9,000 "
4. Petrovsk Coal Trust	8,000 "
5. Rutchenkovo Coal Trust	8,000 "
6. Kuibyshev Coal Trust	6,000 "
7. Budenov Coal Trust	7,000 "
8. Sovetsk Coal Trust	5,000 "
9. Makeev Coal Trust	10,000 "
10. Krasnogvardeysk Coal Trust	7,000 "
11. Chityakov Anthracite Trust	7,000 "
12. Snezhnyan Anthracite Trust	5,000 "

Total daily output 95,000 metric tons

c) Rostov Coal Combine

1. Gukov Coal Trust	3,500 tons
2. Vlasov Coal Trust	6,000 "
3. Nesvetay Anthracite Trust	10,000 "
4. Donetsko-Grushevsk Trust	3,500 "
5. Buchuraevo-Svinarevo Anthracite Trust	4,000 "
6. Gundorov Coal Trust	1,000 "

Total daily output 28,000 metric tons

-end-

10/735.1	524N
8-11/735.1	524N
103.664	N
755.72	524N
755.11	524N
755.741	524N
2-5/735.1	524N
104.826	524N
5-11/735.1	524N
5-6/735.1	524N
755.311	524N
755.736	524N
10-5/735.1	524N
10-5/743.331	524N
103.685	N
755.734	524N
5-12/735.1	524N
4-5/735.1	524N

CONFIDENTIAL